

REMARKS

In the aforementioned Final Office Action, claims 1-9, 15-17 and 48 were pending and presented for examination. Claims 10-14 and 18-47 were withdrawn from consideration after restriction in paper number 7. Pending claims 1-9, 15-17 and 48 were rejected. In view of the following remarks, Applicants hereby respectfully request reconsideration of the application.

Claim Rejection Under 35 U.S.C. § 102

In the aforementioned Final Office Action, the Examiner rejected claim 1 under 35 U.S.C. § 102(b) in light of U.S. Patent Number 4,917,097 to Proudian, deceased et al. (hereinafter *Proudian*).

The Examiner found claim 1, of the present application and as previously amended, to "call[] for specificity in the cableless coupling assembly such that it comprises 'intermediate elements coupled to electrical pads.'" The Examiner, in turn, found *Proudian* to disclose "an ultrasound imaging system including an ultrasound transducing assembly 44 and electrodes, intermediate elements in the form of conductive traces 46 coupled to electrical pads 56, and signal generating and receiving units 54" wherein "the transducer array and signal generating/receiving units [are] coupled via the conductive trace-electrical pad connection."

Claim 1 of the application, as presently amended, now recites a "cableless coupling assembly comprising intermediate elements coupled to electrical pads **wherein the intermediate elements comprise electrically conductive particles, and is configured to attenuate sound**" (emphasis added). Support for this amendment is found in the specification as filed at [0049] wherein various intermediate elements are disclosed, such as "cross section[s] of any shape," "mixture[s] of any of, any combination of, or all of epoxy, polyurethane, and/or silicone" and may also include "graphite or other electrically conductive particles, which also help attenuate sound."

But while the Examiner asserts *Proudian* to teach "conductive traces 46 coupled to electrical pads 56" there is no indication these conductive traces are *both* electrically conductive *and* help attenuate sound. There is, in fact, **no teaching** in *Proudian* as to the conductive traces having **any characteristic** as it pertains to attenuating sound.

As *Proudian* fails to teach intermediate elements that comprise electrically conductive particles and attenuate sound, *Proudian* cannot be said to disclose each and every element of the claimed invention. *See Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 U.S.P.Q. 481, 485 (Fed.Cir. 1984). The Examiner's 35 U.S.C. § 102(b) rejection as to claim 1, therefore, is overcome.

The rejection to claim 1 having been overcome, applicants respectfully remind the Examiner that claim 1 is a generic claim whereby those claims previously withdrawn in the species restriction of paper number 7 should be reintroduced. Applicants arguments as to reintroduction of these previously withdrawn claims are set forth in detail below.

Claim Rejection Under 35 U.S.C. § 103

In the aforementioned Final Office Action, the Examiner rejected claims 2-4, 6-9 and 15-17 under 35 U.S.C. § 103(a) in light of U.S. Patent Number 5,648,942 to Kunkel, III (hereinafter *Kunkel*) alone or further in view of U.S. Patent Number 6,043,590 to Gilmore (hereinafter *Gilmore*) or U.S. Patent Number 5,744,898 to Smith et al. (hereinafter *Smith*).

The Examiner found amended base claim 2 to mean "in the conductivity path of **with no further limitation as to immediacy or direct mechanical connection**" (emphasis added). In light of that interpretation, the Examiner found the conductive post-assembly and printed-board to cable of *Kunkel* to make the invention as recited in claims 2, 15 and 48 obvious.

Claim 2 of the present application, as amended, now recites "a signal generating and receiving unit connected to the acoustically isolating assembly **wherein the transducers are directly connected to the signal generating and receiving unit via a**

“connector” (emphasis added). The present amendment to claim 2—and claims 15 and 48—adds the additional limitation of a direct physical connection via a connector. This amendment overcomes not only the Examiner’s interpretation and subsequent rejection of the previously amended claim language wherein the connection provided “electrical connection between the signal generator/receiver and the acoustic isolating assembly” as is allegedly taught by *Kunkel* but also the direct flex circuit electrical connection of *Gilmore*. *Smith* is also overcome in that it, too, is solely concerned with “electrical connection.” Col. 16, l. 5. *Smith* further requires implementation of that connection with highly particularized “cavity down” positioning and a “multi-layer ceramic connector” not present in the claimed invention. Col. 16, l. 6-17.

Claims 3-4, 6-9 and 16-17, being either directly dependent upon claims 2 or 15 or an intervening claim ultimately dependent upon claims 2 or 15, are also overcome for at least the reasons set forth above.

Species Restriction & Allowability of Generic Claim 1

Applicants respectfully direct the Examiner’s attention to claims 10-14 and 18-23 in that they are reintroduced in the present amendment. Reintroduction is made pursuant to Applicant’s assertion that a generic claim (claim 1) is now in condition for allowance as set forth above. As such, those claims previously withdrawn in the species restriction of paper number 7 should be reintroduced; Applicants arguments as to reintroduction of these previously withdrawn claims are set forth in detail below.

Reintroduced claims 10-14 and 18-23 are either directly dependent upon claims 2 or 15 or an intervening claim ultimately dependent upon claims 2 or 15, and are allowable for at least the reasons set forth above.

In the Restriction Requirement/Office Action dated March 25, 2003 (Paper No. 7), the Examiner required an election under 35 U.S.C. § 121 to (1) a cableless and acoustically isolated ultrasound transducing assembly (Claims 1-23, 48) or (2) an acoustic transducing system and method (Claim 24-47). In the same Restriction

Requirement/Office Action, the Examiner further stated, "Claim 1 for example is considered to be generic regarding species set forth in Figs. 2, 4 and 6-10" and required therein election of a species.

Applicants, in their response dated April 24, 2003, traversed the restriction and provisionally elected the claims directed to a cableless and acoustically isolated ultrasound transducing assembly (Claims 1-23, 48) and, further, provisionally elected the species disclosed in Figs. 2 & 3 (Claims 1-9, 15-17, 24-29, 32-28 and 44-48), also with traverse.

The Examiner proceeded to make the election of invention and species final in the Non Final Office Action dated October 22, 2003 (Paper No. 9). In doing so, claims 10-14, 18-47 were withdrawn from consideration. This withdrawal left claims 1-9, 15-17 and 48 (as representative of a cableless and acoustically isolated ultrasound transducing assembly and the species disclosed in Figs. 2 & 3) present for examination. The Examiner also stated "[i]f and when a generic claim is found to be allowable, claims drawn to the non-elected Fig. 4-10 species may be rejoined to this application."

Claim 1—a generic claim—is believed to be allowable as set forth above. As such, applicant has re-presented and respectfully requests that the claims drawn to the non-elected species in Figures 4-10—claims 10-14 and 18-23—now be considered for examination. If the Examiner continues to find generic claim 1 rejected, however, the applicants hereby elect the species disclosed in Figs. 2 & 3 and as embodied in the cableless and acoustically isolated transducing assembly—claims 1-9, 15-17 and 48—for continued examination under 37 CFR § 1.114.

CONCLUSION

Based on the foregoing remarks, applicants believe that the rejections in the Final Office Action of April 13, 2004 are fully overcome, and that the application is in condition for allowance. If the Examiner has questions regarding the case, the Examiner is invited to contact applicants' undersigned representative at the number given below.

Respectfully submitted,
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